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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,477	10/07/2004	Hans-Helmut Goertz	53405	7354
26474	7590	09/06/2005	EXAMINER	
NOVAK DRUCE DELUCA & QUIGG, LLP 1300 EYE STREET NW SUITE 400 EAST WASHINGTON, DC 20005			TRUONG, DUC	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/510,477

Applicant(s)

GOERTZ ET AL.

Examiner

Duc Truong

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Edelmann et al or Chaloyard et al, both of record on 1449.

The Edelmann reference discloses the reactivity of the (n5-formylcyclopentadienyl) M (CO)<sub>3</sub> anions (M=Cr, Mo, W) towards electrophilic reagents have been studied in that the electrophilic attack at the metal was found by Mo and tungsten, and can serve as catalyst in chemical reaction. (see Summary) in that specific catalyst has been disclosed on page 92 and Sn(CH<sub>3</sub>)<sub>2</sub> can be replaced by halogen or Au(PPh<sub>3</sub>) (see Summary).

The Chaloyard reference discloses the synthesis of ring substituted derivatives of cyclopentadienyl Tricarbonyl complexes of molybdenum and tungsten in that specific formulae have been disclosed in Table I at page 3218.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over UK 1187233 in view of Edlmann or Chaloyard, they are of record on 1449.

The UK 1187233 discloses a process for preparing polyoxymethylene by polymerizing formaldehyde or trioxane or other source of oxymethylene inits, in the presence of an organometallic complex cation of the formula (see pages 1-2).

The disclosure of the reference differs from the instant claims in that it does not disclose the catalyst of the claimed formula I.

Edlmann and Chaloyard disclose that the ring substituted derivatives of cyclopentadienyl tricarbonyl complexes are included in organometallic complex cations and can be used as catalyst.

The person of ordinary skill in the art would be motivated to replace said catalyst as disclosed in UK 1187233 by the ring substituted derivatives of cyclopentadienyl tricarbonyl complexes of Mo and W, since they have the same functionality in the claimed process for preparing said polyoxymethylene, in order to gain the advantages of the combination of the references, that being polyoxymethylene polymer which has the added property of improving the reactivity of the anions towards electrophilic reagents.

UK 1187233 discloses a process for preparing polyoxymethylene by contacting a formaldehyde source with an organometallic cation catalyst.

Edlmann and Chaloyard disclose that the ring substituted derivatives of cyclopentadienyl tricarbonyl complexes are included in organometallic complex cations and can be used as catalysts.

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The inclusion of said catalyst in the method for preparing polyoxymethylene would not provide an unexpected result to one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Truong whose telephone number is 571-272-1081. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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DUCTRUONG  
PRIMARY EXAMINER